Introduction

DS Waters of America, LP (hereinafter the discharger) operates the Sparkletts Bottling Plant a water bottling facility, located in Lakeside, California. On March 15, 1993, this Regional Board adopted Order No. 93-33 for Sparkletts Drinking Water Corporation to discharge up to 0.076 million gallons per day (MGD) of process wastewater to a percolation pond.

The facility is located at 11811 Highway 67, Lakeside California; Assessor's Parcel Number 375-180-02-000, at 32^{o} 53.50 North Latitude and 116^{o} 56.30 West Longitude; and is adjacent to State Highway 67 about 2 miles north of Lakeside in the Santee Hydrologic Subarea (907.12) of the Lower San Diego Hydrologic Area (907.10) of the San Diego Hydrologic Unit. A sitemap is shown in Attachment "A" to this Statement of Basis.

On October 26, 2003, the Sparkletts Bottling Plant was destroyed by fire. The discharger notified this Regional Board of its intent to rebuild a new facility identical to the original Lakeside Bottling facility to continue bottled water production and the discharge of process wastewater to groundwater via a percolation pond.

DS Waters submitted a Report of Waste Discharge, dated May 27, 2004, in application for Waste Discharge Requirements for the new facility on June 1, 2004. The discharger requested an increase in flow from 76,000 gallons per day to 106,400 gallons per day to a percolation pond.

The County of San Diego, as lead agency for purposes of compliance with the California Environment Quality Act (CEQA), determined that the DS Waters of America, LP reconstruction project is exempt from the requirements pursuant to Title 14, Chapter 3, Article 18, Section 15269, *Emergency Projects*.

Facility Description

The discharger (or its predecessor Sparkletts Drinking Water Corp.) has operated this bottled water production facility since June 1953 for the sale and distribution of bottled drinking water. Groundwater from on-site wells is de-ionized by artificial resins and bottled daily. The resins are self-regenerated and the process does not use any acidic and alkali solutions. The regeneration process waste along with filter backwash, reverse osmosis brine, and washer rinse, are discharged to the percolation pond.

Approximately two hundred thousand gallons of water are treated at the facility each day, which results in approximately sixty four thousand gallons of bottled water per day. The increase in flow from 76,000 gallons per day (GPD) to 106,400 GPD will result in an average monthly discharge of 3,192,000 gallons to the percolation ponds.

The discharger has stated that the Lakeside plant must use approximately 100,000 gallons of groundwater pumped daily from the on-site wells to produce 32,000 gallons of bottled water. The remaining 68,000 gallons of water including filter backwash, reverse osmosis brine, and washer rinse is discharged to the percolation pond daily. Before 1992, the Lakeside plant used an old type of reverse osmosis membrane which did not tolerate water with high concentration of silica. Each year the discharger used approximately 20 tons of salt to regenerate the water softener resin, and the brine was discharged to the percolation pond. The discharger indicated that in 1992 the Lakeside plant's old type of reverse osmosis membrane was replaced with a new type of reverse osmosis membrane which can tolerate high concentration of silica-water eliminating the brine discharge from the water softener. As a result, the concentration of TDS in the wastewater to the percolation pond has been significantly reduced. The elimination of brine discharge from water softener helps to reduce the TDS concentration of wastewater discharged to the percolation pond.

Water Processing

The discharger has operated a water treatment facility since June 1953 for the sale and distribution of bottled drinking water. The flow of the water processing begins with well water being pumped from at a depth of 960 feet. The water is pumped out at a rate of 244,800-288,000 GPD and is also used for all domestic needs of the facility. The well water flows into a storage tank where it is injected with a low concentration potassium permanganate solution and then pumped through greensand filters. There the greensand filters remove iron and manganese from the well water, which flows into a storage tank. The greensand filters are cleaned using a backwashing procedure where the backwash water flows to a drain.

From the storage tank the water enters the first pass of the Reverse Osmosis (R.O.) system, to a Degasifier to remove carbon dioxide and into a reverse osmosis storage tank. Brine from the reverse osmosis is either recycled through the system or flows to the drain.

Water stored in the reverse osmosis storage tank is then pumped through the second reverse osmosis system (second pass) where it then ready to become final product water. The second pass reverse osmosis product water then enters either the re-mineralization or deionized section of the process. The brine from the second pass reverse osmosis flows to the drain. The re-mineralization process takes the second pass reverse osmosis product water and adds the food grade minerals to make up either Crystal Fresh Drinking Water or Crystal Fresh Fluoridated Drinking Water.

The deionized process takes second pass R.O. product water and passes it through a new system called Constant Deionization (CDI) where electronically charged plates and resins remove minerals from the water producing Purified Water. Water exiting the CDI system flows through a Purified Water storage tank and a small amount of waste flows to the drain.

Bottling Process

Returnable bottles pass through a leak detector then washed using a series of stages of jets that perform various cleaning and sanitization steps. The first step rinse water uses non-product water which discharges to the drain. The bottles are washed using soap at a temperature of 130-150 degrees F. Water removed from the wash section flows to the drain. The bottles are then rinsed using a sanitizer then finally rinsed using product water. The rinse wastewater flows to the drain.

Waste Discharges

There are several types of process wastewater generated from the industrial activities that are discharged to land:

- Backwash water from the greensand filters discharges to drain
- Brine from the first and second pass reverse osmosis processes flows to the drain
- Wastewater from the DCI process
- Rinse waters from the Bottling process flows to the drain

The constituents of concern are Total Dissolved Solids (TDS), Chloride, Sulfate and pH. Listed below is a summary of the historical monitoring results of the groundwater and the wastewater impoundment from the previous Lakeside Bottling Plant from January 1990 through September 2003. Also, listed are the Basin Plan Objectives for groundwater in the Santee Hydrologic Subarea:

Constituent	**Unit Concentration**	**Groundwater Average (4 wells)**	**Effluent Average**	**Basin Plan Objectives**
TDS	mg/L	1189	878	1000
Chloride	mg/L	313	239	400
Sulfate	mg/L	272	204	500
pH	units	5.7 – 8.7	7.4	6.0 – 9.0*
*=within these limits at all times				

The wastewater disposal facility consists of an irregular shaped percolation pond approximately 65 feet x 63 feet x 12 feet and is located approximately 280 feet southeast of the plant.

The discharge of wastewater to land is not expected to adversely impact the Beneficial Uses or Water Quality Objectives of the groundwater within the Lower Santee Hydrologic Subarea. The quality of the wastewater is generally higher than that of the Water Quality Objective and higher than the existing groundwater quality.

Waste Discharge Impacts

Discharge of wastewater to land showed the discharge may not adversely impact the Beneficial Uses and Water Quality Objectives of the groundwater within the Lower Santee Hydrologic Subarea. The quality of the wastewater is generally higher than that of the Water Quality Objectives and higher than that of the existing groundwater quality.

Regulatory Requirements

As a part of the FY 1992/93 Waste Discharge Order Update Program, Order No. 88-59 has been reviewed by this Regional Board in accordance with criteria established in the Administrative Procedures Manual adopted by the State Water Resources Control Board. Order No. 93-33, which superseded Order No. 88-59, made changes to the Findings, Requirements, and Monitoring and Reporting Program of Order No. 88-59.

The **Comprehensive Water Quality Control Plan, San Diego Region (9)** (Basin Plan) was adopted by this Regional Board on March 17, 1975 and approved by the State Water Resources Control Board (State Board) on March 20, 1975. Subsequent updates have been adopted by this Regional Board and approved by the State Board.

The Basin Plan established the following existing and potential beneficial uses for groundwater of the Santee Hydrologic Subarea (907.12):

a. Municipal and domestic supply
b. Agricultural supply
c. Industrial service supply
d. Industrial process supply (Potential)
e. Ground water recharge (Potential)

The Basin Plan established the following existing and potential beneficial uses for surface waters of the Santee Hydrologic Subarea (907.12):

a. Agriculture supply
b. Industrial service supply
c. Water contact recreation
d. Non-contact water recreation
e. Warm fresh-water habitat

f. Cold fresh-water habitat
g. Wildlife habitat
h. Preservation of rare and endangered species
i. Fish spawning

Between January 1990 and August 1992, the average concentration of Total Dissolved Solids, the analyte of primary concern, of the wastewater in the surface impoundment of the Lakeside Bottling Plant was 846 mg/L. The infiltration rate of wastewater through the percolation bed is such that the concentration effect due to evaporation is negligible. Thus the rapid infiltration of wastewater containing an average concentration of 846 mg/L of Total Dissolved Solids will not exceed the Basin Plan's Groundwater Quality Objective of 1000 mg/L for the Santee Hydrologic Subarea.

Groundwater has little or no capacity to assimilate wastewater discharges due to slow contaminant migration rates, lack of aeration, minimal biological activity and laminar flow patterns. This Regional Board issued waste discharge requirements to ensure that these discharges are properly contained to protect the Region's water resources form degradation, and to ensure that dischargers undertake effective monitoring to verify continued compliance with requirements.

Attachment A: Site map of the Lakeside Bottling Plant